

Abstract

A substrate is set on a susceptor installed in a reactor arranged horizontally. Then, a cooling jacket is provided at the opposite portion of the inner wall of the reactor to the substrate. By flowing a given cooling medium through the cooling jacket with a pump connected to the jacket, at least the opposite portion of the inner wall is cooled down, to inhibit the reaction between raw material gases introduced into the reactor. As a result, in fabricating a III-V nitride film, the film growth rate is developed and the crystal quality is developed.